



CONTENTS OF VOLUME 21

Number 1

A new approach to characterising carboxymethylcelluloses by size exclusion chromatography M. RINAUDO (France), J. DANHELKA (Czech Republic) & M. MILAS (France)	1
The crystalline domains in potato starch granules are arranged in a helical fashion G. T. OOSTERGETEL & E. F. J. VAN BRUGGEN (The Netherlands)	7
Degradation of the mucilaginous polysaccharide from <i>ruredzo</i> (<i>Dicerocaryum zanguebarium</i>) during autoclaving M. A. N. BENHURA & M. MARUME (Zimbabwe)	13
The deformation of thin films made from extruded starch S. C. WARBURTON, A. M. DONALD & A. C. SMITH (UK)	17
Modification of chitin by ceric salt-initiated graft polymerisation—preparation of poly(methyl methacrylate)-grafted chitin derivatives that swell in organic solvents L. REN, Y. MIURA, N. NISHI & S. TOKURA (Japan)	23
Aqueous size exclusion chromatography of hydroxyethyl-amylopectin D. SARAZIN, J. FRANÇOIS, C. ROQUETA & G. FLÈCHE (France)	29
Distribution of uronate residues in alginate chains in relation to alginate gelling properties—2: Enrichment of β -D-mannuronic acid and depletion of α -L-guluronic acid in sol fraction. B. T. STOKKE, O. SMIDSRØD (Norway), F. ZANETTI (Italy), W. STRAND & G. SKJÅK-BRÆK (Norway)	39
Scanning tunnelling microscopy of xanthan gum A. P. GUNNING, T. J. MCMASTER & V. J. MORRIS (UK)	47
Xanthan–locust bean gum interactions and gelation D. F. ZHAN (People's Republic of China), M. J. RIDOUT, G. J. BROWNSEY & V. J. MORRIS (UK)	53
Summaries of UK Patent Applications	59
News and Views	61
Bibliography of Carbohydrate Polymers	63
Book Reviews	79

Numbers 2 & 3

Foreword THE ORGANIZING COMMITTEE	81
Evidence of the presence of large aggregates contaminating amylose solutions P. ROGER & P. COLONNA (France)	83
Structural features of fatty acid–amylose complexes M. C. GODET, A. BULÉON, V. TRAN & P. COLONNA (France)	91
The microscopic structure of rye kernel and dough T. VIRTANEN & K. AUTIO (Finland)	99

'B' to 'A' type phase transition in short amylose chains	99
P. LE BAIL, H. BIZOT & A. BULÉON (France)	
Water relationships in starch transitions	105
L. SLADE & H. LEVINE (USA)	
Behaviour of starches derived from varieties of maize containing different genetic mutations: effects of starch genotype on granular morphology	133
F. R. KATZ, S. L. FURCSIK, F. L. TENBARGE, R. J. HAUBER & R. B. FRIEDMAN (USA)	
α -Amylases: structure and function	137
M. SØGAARD, J. ABE, M. F. MARTIN-EAUCLAIRE & B. SVENSSON (Denmark)	
Properties of the binding domain of glucoamylase	147
G. WILLIAMSON & N. J. BELSHAW (UK)	
Modification of barley starch by α -amylase and pullulanase	151
M. LAURO, A. LAPPALAINEN, T. SUORTTI, K. AUTIO & K. POUTANEN (Finland)	
Release of ferulic acid from plant polysaccharides by ferulic acid esterase from <i>Streptomyces olivochromogenes</i>	153
C. B. FAULDS & G. WILLIAMSON (UK)	
Basis of cereal starch expansion	157
R. CHINNASWAMY (USA)	
Influence of starch, gluten proteins and extraction rate on bread and pasta quality	169
S. SAHLSTRÖM, E. MOSLETH, A. B. BÆVRE (Norway), H. GLORIA & G. FAYARD (Switzerland)	
Taro (<i>Colocasia esculenta</i>) extrusion.	177
J. A. MAGA, M. B. LIU & T. REY (USA)	
Investigation of the flow behaviour of sourdoughs in a continuously operating fermentation system	179
F. MEUSER & T. H. ZENSE (Germany)	
Physiological effects of cereal dietary fibre	183
N.-G. ASP, I. BJÖRCK & M. NYMAN (Sweden)	
Cereal dietary fibers affect post-prandial lipoproteins in healthy human subjects	189
C. DUBOIS, L. CARA, P. BOREL, M. ARMAND, M. SENFT, H. PORTUGAL, P.-M. BERNARD, H. LAFONT & D. LAIRON (France)	
Technological treatments of cereals. Repercussions on the physiological properties of starch	195
F. BORNET (France)	
Structural discrepancies in resistant starch obtained <i>in vivo</i> in humans and <i>in vitro</i>	205
N. FAISANT, M. CHAMP, P. COLONNA & A. BULÉON (France)	
Factors determining the nutritional value of wheat varieties for poultry	211
N. T. NICOL, J. WISEMAN & G. NORTON (UK)	
Bibliography of Carbohydrate Polymers	217
Book Reviews.	241

Number 4

Phase equilibria and gelation in gelatin/maltodextrin systems—Part I: gelation of individual components.	243
S. KASAPIS, E. R. MORRIS, I. T. NORTON & A. H. CLARK (UK)	
Phase equilibria and gelation in gelatin/maltodextrin systems—Part II: polymer incompatibility in solution	249
S. KASAPIS, E. R. MORRIS, I. T. NORTON & M. J. GIDLEY (UK)	

Phase equilibria and gelation in gelatin/maltodextrin systems—Part III: phase separation in mixed gels	261
S. KASAPIS, E. R. MORRIS, I. T. NORTON & C. R. T. BROWN (UK)	
Phase equilibria and gelation in gelatin/maltodextrin systems—Part IV: composition-dependence of mixed-gel moduli	269
S. KASAPIS, E. R. MORRIS, I. T. NORTON & A. H. CLARK (UK)	
Solid-state CP/MAS ^{13}C -NMR analysis of cellulose and tri- <i>O</i> -substituted cellulose ethers	277
A. ISOGAI, T. KATO, T. URYU (Japan) & R. H. ATALLA (USA)	
Synthesis of sulfated derivatives of curdlan and their anti-HIV activity	283
Z. OSAWA, T. MOROTA, K. HATANAKA, T. AKAIKE, K. MATSUZAKI, H. NAKASHIMA, N. YAMAMOTO, E. SUZUKI, H. MIYANO, T. MIMURA & Y. KANEKO (Japan)	
Transport of nucleic acid bases against their concentration gradients through quaternized chitosan membrane	289
T. URAGAMI, T. KATO, H. NAGAYASU & I. YURA (Japan)	
Separation of coeliac-active peptides from bread wheat with the aid of methylpyrrolidinone chitosan	295
M. DE VINCENZI, M. R. DESSI & R. A. A. MUZZARELLI (Italy)	
The conjugation of RGDS peptide with CM-chitin augments the peptide-mediated inhibition of tumor metastasis	299
H. KOMAZAWA, I. SAIKI, Y. IGARASHI, I. AZUMA, S. TOKURA, M. KOJIMA, A. ORIKASA, M. ONO & I. ITOH (Japan)	
Bibliography of Carbohydrate Polymers	309
Book Reviews	319